

WHAT IS CLAIMED IS:

1. A composition for an organic EL element for forming at least one luminescent layer having a certain color, said composition comprising;

a precursor of a conjugated organic polymer compound for forming said luminescent layer; and

at least one kind of fluorescent dye for changing the luminescence characteristic of the luminescent layer.

2. ~~The composition for an organic EL element as claimed in claim 1, wherein said luminescent layer is formed from a pattern of the composition which is formed by an ink-jet method.~~

3. The composition for an organic EL element as claimed in claim 1, wherein the luminescence characteristic is a maximum wavelength of light absorption.

4. ~~The composition for an organic EL element as claimed in claim 1, wherein the conjugated organic polymer compound is a hole injection and transfer type material.~~

5. The composition for an organic EL element as claimed in claim 1, wherein the precursor of the conjugated organic polymer compound includes a ^{polyarylene} ~~polyallylene~~ vinylene precursor.

6. The composition for an organic EL element as claimed in claim 5, wherein the ^{polyallylene vinylene precursor} ~~precursor of the conjugated organic polymer~~ compound includes a precursor of a polyparaphenylene vinylene or a polyparaphenylene vinylene derivative.

7. The composition for an organic EL element as claimed in claim 1, wherein the fluorescent dye includes rhodamine or rhodamine derivative.

8. The composition for an organic EL element as claimed in claim 1, wherein the fluorescent dye includes distyrylbiphenyl or distyrylbiphenyl derivative.

9. The composition for an organic EL element as claimed in claim 1, wherein the fluorescent dye includes coumarin or coumarin derivative.

10. The composition for an organic EL element as claimed in claim 1, wherein the fluorescent dye includes tetraphenylbutadiene (TPB) or tetraphenylbutadiene derivative.

11. The composition for an organic EL element as claimed in claim 1, wherein the fluorescent dye includes quinacridone or quinacridone derivative.

12. The composition for an organic EL element as claimed in claim 1, wherein the precursor of the conjugated organic polymer compound and the fluorescent dye exist in the state of being dissolved or dispersed into a polar solvent.

13. The composition for an organic EL element as claimed in claim 1, wherein the amount of the fluorescent dye to be added is 0.5 to 10wt% with respect to a solid component of the precursor of the conjugated organic polymer compound.

Sub
C5
14. The composition for an organic EL element as claimed in claim 1, wherein the composition contains a wetting agent for preventing the composition from being dried and solidified.

Sub
B2
15. The composition for an organic EL element as claimed in claim 2, wherein a contact angle with respect to a material constituting a nozzle surface of a nozzle provided in a head of an ink-jet device used for the ink-jet method for discharging the composition lies in the range of 30 to 170 degrees.

Sub
B2
16. The composition for the organic EL element as claimed in claim 1, wherein a viscosity of the composition for the organic EL element is 1 to 20cp.

Sub
B2
17. The composition for the organic EL element as claimed in claim 1, wherein a surface tension of the composition for the organic EL element is 20 to 70dyne/cm.

18. A method of manufacturing an organic EL element, comprising the steps of:

Sub
B2
coating a pattern by discharging a composition for an organic EL element containing a precursor of a conjugated organic polymer compound from a head by an ink-jet method; and

forming at least one luminescent layer for a certain color by conjugating the precursor of the conjugated organic polymer compound.

19. The method of manufacturing the organic EL element as claimed in claim 18, wherein the composition further comprises at

^{fluorescent}
A least one kind of ~~luminescent dye~~ for changing a luminescence characteristic of the luminescent layer.

¹⁷
20. The method of manufacturing the organic EL element as claimed in claim ^{18 16} 19, wherein the luminescence characteristic is a maximum wavelength of light absorption.

¹⁸
21. The method of manufacturing the organic EL element as claimed in claim ¹⁶ 18, wherein the conjugated organic polymer compound is a hole injection and transfer ~~type~~ material.

¹⁹
22. The method of manufacturing the organic EL element as claimed in claim ¹⁶ 18, wherein the precursor of the conjugated organic polymer compound includes a precursor of a ^{polyarylene} ~~polyallylene~~ vinylene.

²⁰
23. The method of manufacturing the organic EL element as claimed in claim ¹⁹ 22, wherein the ^{polyarylene vinylene} precursor ~~of the polyallylene vinylene~~ includes a precursor of a polyparaphenylene vinylene or a polyparaphenylene vinylene derivative.

²¹
A 24. The method of manufacturing the organic EL element as claimed in ~~any one of claims 18, 19, 20, 21~~ ^{claim 18 16} 18, wherein the fluorescent dye includes rhodamine or rhodamine derivative.

²²
25. The method of manufacturing the organic EL element as claimed in claim ^{18 16} 19, wherein the fluorescent dye includes distyrylbiphenyl or distyrylbiphenyl derivative.

²³
26. The method of manufacturing the organic EL element as

F. claimed in claim ^{18 16} 19, wherein the fluorescent dye includes coumarin or coumarin derivative.

F ²⁴ 27. The method of manufacturing the organic EL element as claimed in claim ^{18 16} 19, wherein the fluorescent dye includes tetraphenylbutadiene (TPB) or tetraphenylbutadiene derivative.

F ²⁵ 28. The method of manufacturing the organic EL element as claimed in claim ^{18 16} 19, wherein the fluorescent dye includes quinacridone or quinacridone derivative.

29. The method of manufacturing the organic EL element as claimed in claim 18, wherein a contact angle with respect to a material constituting a nozzle surface of a nozzle of a device used for the ink-jet method for discharging the composition lies in the range of 30 to 170degrees.

²⁷ 30. The method of manufacturing the organic EL element as claimed in claim ^{18 16} 18, wherein a viscosity of the composition for the organic EL element is 1 to 20cp.

²⁸ 31. The method of manufacturing the organic EL element as claimed in ^{18 16} 18, wherein a surface tension of the composition for the organic EL element is 20 to 70dyne/cm.

Add
G9